

PROSPECTUS



DATATRAK International, Inc.

657,625 Common Shares

The selling shareholders are offering 657,625 of our common shares. Of these 657,625 common shares, 602,500 were acquired by certain selling shareholders pursuant to the share purchase agreement, dated as of August 6, 2003, among us and certain selling shareholders. In addition, 25,125 common shares may be acquired at \$4.80 per share upon the exercise of warrants issued to our placement agents as a result of the consummation of the share purchase agreement, dated as of August 6, 2003; and 30,000 common shares were issued in connection with a consulting agreement between us and an outside consultant related to our investor relations program. We will not receive any of the proceeds from the sale of the common shares by the selling shareholders.

Our common shares trade on the Nasdaq SmallCap Market under the symbol "DATA." On September 16, 2003, the closing price of our common shares on the Nasdaq SmallCap Market was \$4.80.

The selling shareholders may sell the common shares from time to time through public or private transactions, on or off the Nasdaq SmallCap Market, at prevailing prices or at privately negotiated prices.

Investing in our common shares involves risks. See "Risk Factors" beginning on page 2.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is September 18, 2003.

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SUMMARY

This summary highlights information contained in this prospectus. This summary is not complete and does not contain all the information that you should consider before investing in our common shares. You should read the entire prospectus carefully.

DATATRAK International, Inc.

We are a provider of software and other related services, commonly referred to as an application service provider, or ASP. Our customers use our software to collect and transmit clinical trial data electronically, commonly referred to as electronic data capture, or EDC. Our customers are companies in the clinical pharmaceutical, biotechnology, contract research organization and medical device research industries. Our services assist these companies to accelerate completion of clinical trials by streamlining the collection of data relating to those clinical trials, improving the quality of the data collected and thus reducing the time required to review the results of each clinical trial.

Our principal executive offices are located at 6150 Parkland Boulevard, Mayfield Heights, Ohio 44124. Our telephone number is (440) 443-0082.

The Offering

Securities Offered	DATATRAK common shares that were acquired by certain selling shareholders pursuant to the share purchase agreement, dated as of August 6, 2003, that may be acquired upon the exercise of warrants issued to our placement agents as a result of the consummation of the share purchase agreement, dated as of August 6, 2003, and that were issued to an outside consultant in connection with a consulting services agreement.
Number of Securities Offered	The selling shareholders are offering 657,625 of our common shares. Of these 657,625 common shares, 602,500 were acquired by certain selling shareholders pursuant to the share purchase agreement, dated as of August 6, 2003, among us and certain selling shareholders, and 30,000 common shares were issued in connection with a consulting agreement between us and an outside consultant. Additionally, 25,125 common shares may be acquired upon the exercise of warrants issued to our placement agents as a result of the consummation of the share purchase agreement, dated as of August 6, 2003.
Nasdaq Ticker Symbol	DATA
Use of Proceeds	All of the common shares offered under this prospectus are being sold by the selling shareholders. We will not receive any of the proceeds from the sale of these common shares.
Risk Factors	You should carefully read and consider, in addition to the matters set forth elsewhere in this prospectus and contained in the registration statement we have filed with the Securities and Exchange Commission, the information in the “Risk Factors” section beginning on page 2.

RISK FACTORS

You should carefully consider the following risk factors and other information before deciding to invest in our common shares.

We have a limited operating history and we have not had profitable operations.

We began providing EDC services in 1997 and we have a limited operating history upon which you may evaluate our performance. We have recognized operating losses in each year since 1997. Our cumulative operating loss since 1997 from our EDC operations totaled \$39.0 million at June 30, 2003. We may not be profitable during future periods.

If we do not continue to enhance our software, we may not be able to meet the evolving needs of our customers.

Although our proprietary DATATRAK EDC® software has been used in clinical trials, continued enhancement is necessary to provide additional functions and services to meet the ever-changing needs and expectations of our customers. Among the enhancements we have added to our software to date are features including electronic signatures, single user login for added security, and multiple user access. To date, we have had limited EDC revenue from which to support the costs of this continued software enhancement. Our potential future revenue may not be sufficient to allow us to absorb corporate overhead and other fixed operating costs necessary for the success of the DATATRAK® process.

Our quarterly results fluctuate significantly.

We are subject to significant fluctuations in quarterly results caused by many factors, including

- our success in obtaining new contracts,
- the size and duration of the clinical trials in which we participate, and
- the timing of clinical trial sponsor decisions to conduct new clinical trials or cancel or delay ongoing trials.

Our expense levels are based in part on our expectations as to future revenue and, to a certain extent, are fixed. We cannot assure you as to our revenues in any given period, and we may be unable to adjust expenses in a timely manner to compensate for any unexpected revenue shortfall. As a result of our relatively small revenue base, any significant shortfall in revenue recognized during a particular period could have an immediate adverse effect on our results of operations and financial condition. Volatility in our quarterly results may adversely affect the market price of our common shares.

Our business strategies are unproven and we are in an early stage of development.

Our efforts to establish a standardized EDC process for collection and management of clinical research data represent a significant departure from the traditional clinical research practices of clinical trial sponsors. The long-term viability of our business remains unproven. Our strategy may not gain acceptance among sponsors of clinical research, research sites or investigators. You should consider our prospects in light of the risks, expenses and difficulties frequently encountered by companies in their early stages of development, and particularly companies in new and rapidly evolving markets.

We may lose revenues if we experience delays in clinical trials or if we lose contracts.

Although our contracts provide that we are entitled to receive revenue earned through the date of termination, our customers generally are free to delay or terminate a clinical trial or our contract related to the trial at any time. The length of a typical clinical trial contract varies from several months to several years. Clinical trial sponsors may delay or terminate clinical trials for several reasons, including

- unexpected results or adverse patient reactions to a potential product,

- inadequate patient enrollment or investigator recruitment,
- manufacturing problems resulting in shortages of a potential product, or
- decisions by the sponsor to de-emphasize or terminate a particular trial or drug.

We may lose revenues if a clinical trial sponsor decides to delay or terminate a trial in which we participate.

We may lose revenues if our major customers decrease their research and development expenditures, or if we lose any of our major customers.

Our primary customers are companies in the pharmaceutical industry. Our business is substantially dependent on the research and development expenditures of companies in this industry. The extent to which we rely on revenue from one or more major customers varies from period to period depending upon, among other things, our ability to generate new business and the timing and size of clinical trials. In light of our small revenue base, we are more dependent on major customers than many of our larger competitors in the EDC industry. During the twelve months ended December 31, 2002, four customers accounted for approximately 69% of our total revenue. Additionally, during the six months ended June 30, 2003, five customers accounted for approximately 70% of our total revenue. Our operations could be materially and adversely affected by, among other things,

- any economic downturn or consolidations in the pharmaceutical or biotechnology industries,
- any decrease in those industries' research and development expenditures, or
- a change in the regulatory environment in which companies in these industries operate.

Changes in government regulations relating to the health care industry could have a material adverse effect on the demand for our services.

Demand for our services is largely a function of the regulatory requirements associated with the approval of a new drug application by the FDA. These requirements are stringent and are more burdensome than those imposed by many other developed countries. In recent years, efforts have been made to streamline the drug approval process and coordinate U.S. standards with those of other developed countries. Changes in the level of regulation, including a relaxation in regulatory requirements or the introduction of simplified drug approval procedures, could reduce the demand for our services. Several competing proposals to reform the system of health care delivery in the U.S. have been considered by Congress from time to time. To date, none of these proposals has been adopted.

The FDA's guidelines and rules related to the use of computerized systems in clinical trials are still in the early stages of development. The DATATRAK® process may not continue to comply with these guidelines and rules as they develop, and corresponding changes to our product may be required. Any release of FDA guidance that is significantly inconsistent with the design of DATATRAK EDC® may cause us to incur substantial costs to remain in compliance with FDA guidance and regulations.

We may not be able to capture or establish the market presence necessary to compete in the EDC market.

The EDC market, which is still developing and must compete with the traditional paper method of collecting clinical trial data, is highly fragmented. The major competitors in the EDC market include

- EDC software vendors,
- clinical trial data service companies that use paper for data collection, and
- in-house development efforts within large pharmaceutical companies.

Our current and potential future competitors may have substantially greater resources, greater name recognition and more extensive customer bases that could be leveraged, thereby gaining market share or product acceptance

to our detriment. We may not be able to capture or establish the market presence necessary to effectively compete in this emerging sector of the clinical research industry.

We may be subject to liability for potential breaches of contract or losses relating to the unauthorized release of clinical trial data.

Our services are supported by telecommunications equipment, software, operating protocols and proprietary applications for high-speed transmission of large quantities of data among multiple locations. In addition, clinical pharmaceutical and medical device research requires the review and handling of large amounts of patient data. Potential liability may arise from a breach of contract or a loss or unauthorized release of clinical trial data. If we were forced to undertake the defense of, or were found financially responsible for, claims based upon these types of losses or unauthorized releases, our financial resources could be diminished. We maintain a \$5 million errors and omissions professional liability policy to cover claims that may be brought against us. This coverage may not be adequate, and insurance may not continue to be available to us in the future.

The price of our common shares could be adversely affected by the dilution caused by the sale of the common shares issued to the selling shareholders.

In August 2003, we sold 602,500 of our common shares to certain selling shareholders at a price of \$4.00 per share, and issued warrants to purchase an additional 25,125 of our common shares at \$4.80 per share to our placement agents pursuant to separate placement agent agreements. In April 2003, we issued 30,000 common shares to an outside consultant for services related to our investor relations programs. These 657,625 common shares represent, upon issuance of the 25,125 common shares underlying the placement agent's warrants, 11.0% of our outstanding common shares. Sales of a substantial number of these common shares in the public market could depress the market price of our common shares. The perceived risk resulting from the sale of these common shares could cause some of our shareholders to sell their common shares, thus causing the price of our common shares to further decline. In addition, the downward pressure on the price of our common shares could cause some of our shareholders to engage in short sales of our common shares, which may cause the price of our common shares to decline even further.

FORWARD-LOOKING STATEMENTS

This prospectus, and the information incorporated by reference in this prospectus, contains "forward-looking" statements, within the meaning of federal securities laws, about our financial condition, results of operations and business. You can find many of these statements by looking for words like "expects," "anticipates," "intends," "plans," "believes" and "estimates" or similar expressions used in this prospectus. These forward-looking statements are subject to numerous assumptions and risks and uncertainties that may cause our actual results or performance to be materially different from any future results or performance expressed or implied by the forward-looking statements. These risks and uncertainties include those identified under the heading "Risk Factors" in this prospectus. These factors include, but are not limited to,

- our ability to absorb corporate overhead and other fixed costs in order to successfully market the DATATRAK EDC® software,
- the development and fluctuations in the market for EDC technology,
- our success in obtaining new contracts,
- the timing of payments from customers and the timing of clinical trial sponsor decisions to conduct new clinical trials or cancel or delay ongoing clinical trials,
- government regulations affecting us,
- the early stage of our application service provider, or ASP, operations, and
- general economic conditions, such as the rate of employment, inflation, interest rates and the condition of the capital markets.

Because these forward-looking statements are subject to risks and uncertainties, we caution you not to place undue reliance on these statements, which speak only as to the date of this prospectus. We do not undertake any

responsibility to review or confirm analysts' expectations or estimates or to release publicly any revisions to these forward-looking statements to take into account events or circumstances that occur after the date of this prospectus. In addition, we do not undertake any responsibility to update you on the occurrence of unanticipated events which may cause actual results to differ from those expressed or implied by these forward-looking statements.

THE COMPANY

DATATRAK International, Inc. is an ASP that provides EDC and other services to companies in the clinical pharmaceutical, biotechnology, contract research organization and medical device research industries. Our services assist these companies in accelerating completion of clinical trials by streamlining the collection of data relating to clinical trials, improving the quality of the data collected, and thus reducing the time required to review the results of each clinical trial.

We were founded in 1991 as a site management organization. We provided clinical research services to various clinical trial sponsors through our clinical business, which we sold in April 1999. We currently operate as an ASP business providing EDC and other services to the clinical research industry.

We began EDC operations in 1997. During that year, we participated in a joint venture with IBM Global Services to develop and market a data collection and management system for use in clinical trials. The joint venture was subsequently terminated, and in January 1998, we purchased the software now known as DATATRAK EDC® from PadCom Clinical Research for \$610,000. DATATRAK EDC® software was developed to provide clinical research data to sponsors of clinical research trials faster and more efficiently than other forms of information-processing.

The DATATRAK EDC® software and its earlier versions have supported many international clinical studies encompassing thousands of clinical research sites and tens of thousands of patients in more than 40 countries. To date, we have devoted most of our efforts toward further developing and improving the EDC technology employed by the DATATRAK EDC® software.

We were incorporated under the laws of the state of Ohio in July 1991. Our principal executive offices are located at 6150 Parkland Boulevard, Mayfield Heights, Ohio 44124. Our telephone number at that address is (440) 443-0082.

Recent Developments

In August 2003, we received approximately \$2.4 million in connection with the consummation of a private placement of 602,500 of our common shares at a purchase price of \$4.00 per share. The terms of this financing included the issuance of five-year warrants to purchase a total of 25,125 common shares at \$4.80 per share to three non-exclusive placement agents for the private placement. In April 2003, we issued 30,000 common shares to an outside consultant in connection with a consulting agreement for services related to our investor relations program. These 657,625 common shares represent, upon issuance of the 25,125 common shares underlying the placement agents' warrants, 11.0% of our outstanding common shares. We expect to use the proceeds of the private placement to expand our worldwide marketing and sales efforts, continue investing in software development and for other general working capital purposes.

By its terms, the share purchase agreement, dated as of August 6, 2003, prohibits us from selling any of our common shares, during the period ending ninety days after August 6, 2003, at a price per common share of less than \$4.00, without paying the selling shareholders an amount equal to the difference between \$4.00 and the subsequent selling price, multiplied by the number of our common shares that each selling shareholder purchased in the August 2003 private placement. In addition to making a series of standard representations and warranties to the selling shareholders, we agreed to register the common shares which certain selling shareholders purchased pursuant to the share purchase agreement, dated as of August 6, 2003.

USE OF PROCEEDS

All of the common shares offered under this prospectus are being sold by the selling shareholders. We will not receive any of the proceeds from the sale of these common shares.

THE SELLING SHAREHOLDERS

The following table contains information with respect to the number of our common shares owned or issuable upon the exercise of warrants owned by each of the selling shareholders as of August 6, 2003. None of the selling shareholders has, or had, any position, office or other material relationship with us or any of our affiliates beyond their investment in or receipt of our securities, except for (i) Scottsdale Capital Advisors, (ii) Cardinal Securities, LLC, (iii) Robert R. Blakely, Scott R. Griffith and Jesse B. Shelmire, who are principals of Stonegate Securities, Inc., and (iv) Mark Jazwin and Jan Koontz, who are agents of Scottsdale Capital Advisors, the placement agents for the private placement. Additionally, Neal Feagans is an outside consultant to the company and performs services related to our investor relations program.

We have filed with the Commission a registration statement, of which this prospectus is a part, with respect to the resale of our common shares from time to time, under Rule 415 under the Securities Act of 1933, in the over-the-counter market, in privately negotiated transactions, in underwritten offerings or by a combination of these methods for sale. We have agreed to keep this registration statement effective until the earlier of (i) the date on which the common shares are eligible for resale under Rule 144(k) under the Securities Act or (ii) all of the common shares purchased pursuant to the share purchase agreement, dated as of August 6, 2003, have been sold pursuant to the registration statement or Rule 144 or any other rule of similar effect.

The following table is prepared based on information supplied to us by the selling shareholders. Although we have assumed for purposes of the table below that the selling shareholders will sell all of the shares offered by this prospectus, because the selling shareholders may offer from time to time all or some of their shares covered under this prospectus, or in another permitted manner, no assurances can be given as to the actual number of shares that will be resold by the selling shareholders or that will be held by the selling shareholders after completion of the resales. In addition, the selling shareholders may have sold, transferred or otherwise disposed of the common shares or the warrants in transactions exempt from the registration requirements of the Securities Act since the date the selling shareholders provided the information regarding their securities holdings. Information concerning the selling shareholders may change from time to time and changed information will be presented in a supplement to this prospectus if and when necessary and required. Except as described above, there are currently no agreements, arrangements or understandings with respect to the resale of any of the shares covered by this prospectus.

The common shares offered by this prospectus may be offered from time to time by the persons or entities named below:

Name of Selling Shareholder	Shares Beneficially Owned Prior to the Offering			Number of Shares Offered	Shares Beneficially Owned After the Offering(1)		
	Number	Number of Shares Underlying Warrants	Percent		Number	Number of Shares Underlying Warrants	Percent
American Pension Services, Inc. FUB							
Custodian for Jeff W. Holmes SEP	30,000	0	*	30,000	0	0	*
B & B Investments Projects Group Three, LLC (2) . . .	75,000	0	1.2%	75,000	0	0	*
Robert R. Blakely	0	4,166	*	4,166	0	0	*
Capital Ventures International (3)	75,000	0	1.2%	75,000	0	0	*
Cardinal Securities, LLC (4)	0	3,750	*	3,750	0	0	*

Name of Selling Shareholder	Shares Beneficially Owned Prior to the Offering			Number of Shares Offered	Shares Beneficially Owned After the Offering(1)		
	Number	Number of Shares Underlying Warrants	Percent		Number	Number of Shares Underlying Warrants	Percent
Delaware Charter GTY & TR FBO							
William B. McKee Roth IRA (5)	20,000	0	*	20,000	0	0	*
Neal Feagans	82,500	0	*	30,000	52,500	0	*
Michael Fischer	7,500	0	*	7,500	0	0	*
Scott R. Griffith	0	4,167	*	4,167	0	0	*
C. Bruce Howard	5,000	0	*	5,000	0	0	*
Islandia, LP (6)	75,000	0	1.2%	75,000	0	0	*
Mark Jazwin	0	2,172	*	2,172	0	0	*
Jan Koontz	0	2,172	*	2,172	0	0	*
Ronald J. & Barbara A. Marusiak	5,000	0	*	5,000	0	0	*
Stephen A. McConnell	20,000	0	*	20,000	0	0	*
Midsummer Investment, Ltd.(7)	125,000	0	2.1%	125,000	0	0	*
Scottsdale Capital Advisors (8)	0	4,531	*	4,531	0	0	*
Jesse B. Shelmire	0	4,167	*	4,167	0	0	*
Rainbow Trading Corporation	50,000	0	*	50,000	0	0	*
Select Contrarian Value Partners, L.P.(9)	200,000	0	3.3%	100,000	100,000	0	1.7%
Sanjiv Singh	15,000	0	*	15,000	0	0	*

* Indicates less than 1%.

(1) Assumes all of the common shares registered are sold.

(2) William B. McKee, as the manager of the selling shareholder, has voting and investment power with respect to our common shares reported in the table for this selling shareholder. Accordingly, Mr. McKee may be deemed a beneficial owner of our common shares. B & B Investments Projects Group, LLC is a private investment firm that is managed by Mr. McKee.

(3) Heights Capital Management, Inc., as Capital Ventures International's authorized agent, has discretionary authority to vote and dispose of the shares held by Capital Ventures International and may be deemed to be the beneficial owner of those shares. Andrew Frost, in his capacity as President of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by Capital Venture International. Mr. Frost disclaims any such beneficial ownership of the shares.

(4) Scott F. Koch, Robert L. Rosenstein and H. David Coherd are all members of Cardinal Securities, LLC and have voting and investment power with respect to our common shares reported in the table for this selling shareholder. Accordingly, Messrs. Koch, Rosenstein and Coherd may be deemed to be beneficial owners of our common shares.

(5) William B. McKee is the beneficiary of the Delaware Charter GTY & TR FBO William B. McKee Roth IRA account and has voting and investment power with respect to our common shares reported in the table for this selling shareholder. Accordingly, Mr. McKee may be deemed a beneficial owner of our common shares.

(6) John Lang Inc., as the general partner of the selling shareholder, has voting and investment power with respect to our common shares reported in the table for this selling shareholder. Accordingly, John Lang Inc. may be deemed a beneficial owner of our common shares. Islandia, LP is a private investment limited partnership.

- (7) Midsummer Capital, LLC, as the general partner of the selling shareholder, has voting and investment power with respect to our common shares reported in the table for this selling shareholder. Accordingly, Midsummer Capital, LLC may be deemed a beneficial owner of our common shares. Midsummer Investment, Ltd. is a private investment limited partnership.
- (8) Scottsdale Capital Advisors is a registered broker-dealer is wholly-owned by Scottsdale Capital Advisors Corporation. Scottsdale Capital Advisors Corporation is wholly-owned by Scottsdale Capital Advisors Holding LLC. The sole member of Scottsdale Capital Advisors Holding LLC is Justine Hurry. Accordingly, Ms. Hurry may be deemed a beneficial owner of our common shares.
- (9) Kaizen Management, L.P., as the general partner of the selling shareholder, has voting and investment power with respect to our common shares reported in the table for this selling shareholder. Accordingly, Kaizen Management, L.P. may be deemed a beneficial owner of our common shares. Kaizen Capital, LLC is the general partner of Kaizen Management, L.P. David Berry is the sole member of Kaizen Capital LLC and may be deemed a beneficial owner of our common shares. Select Contrarian Value Partners, L.P. is a private investment limited partnership.

PLAN OF DISTRIBUTION

We are registering all 657,625 common shares on behalf of the selling shareholders. The selling shareholders named in the table above or pledgees, donees, transferees or other successors-in-interest selling shares received from a named selling shareholder after the date of this prospectus may sell the shares from time to time. The selling shareholders may also decide not to sell all the shares they are allowed to sell under this prospectus. The sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and at terms then prevailing or at prices related to the then current market price, in negotiated transactions or any other legally available means. The selling shareholders may effect such transactions by selling the shares to or through broker-dealers. The selling shareholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their common shares, nor is there an underwriter or coordinating broker acting in connection with proposed sales of common shares by the selling shareholders. Our common shares may be sold by one or more of, or a combination of, the following:

- a cross trade or a block trade in which a broker or dealer will attempt to sell the common shares as agent but may position and resell a portion of the block as principal to facilitate the transaction,
- purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this prospectus,
- an exchange distribution in accordance with the rules of such exchange,
- ordinary brokerage transactions and transactions in which the broker solicits purchasers,
- to or through Market Makers or into an existing market for the shares, and
- in privately negotiated transactions.

In addition, any common shares covered by this prospectus which qualify for sale pursuant of Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

The selling shareholders may enter into hedging transactions with broker-dealers in connection with distributions of our common shares or otherwise. In such transactions, broker-dealers may engage in short sales of the shares in the course of hedging the positions they assume with selling shareholders. The selling shareholders also may sell shares short and redeliver our common shares to close out such short positions. The selling shareholders may enter into option or other transactions with broker-dealers which require the delivery to the broker-dealer of our common shares. The broker-dealer may then resell or otherwise transfer such shares pursuant to this prospectus. The selling shareholders also may loan or pledge the shares to a broker-dealer. The broker-dealer may sell our common shares so loaned, or upon a default the broker-dealer may sell the pledged shares pursuant to this prospectus.

The selling shareholders may effect transactions by selling common shares directly to purchasers or to or through broker-dealers, which may act as agents or principals. Those broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling shareholders and/or the purchasers of shares for whom those broker-dealers may act as agents or to whom they sell as principal, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions). Compensation as to a particular broker-dealer might be in excess of customary commissions and will be in amounts to be negotiated in connection with our common shares.

The selling shareholders and any broker-dealers that act in connection with the sale of common shares might be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act, and any commissions received by those broker-dealers and any profit on the resale of the common shares sold by them while acting as principals might be deemed to be underwriting discounts or commissions under the Securities Act.

Because the selling shareholders may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act, the selling shareholders will be subject to the prospectus delivery requirements of the Securities Act.

Under applicable rules and regulations under the Securities Exchange Act of 1934, any person engaged in the distribution of our common shares may not simultaneously engage in market-making activities with respect to our common shares for a period of two business days prior to the commencement of such distribution. In addition, each selling shareholder will be subject to applicable provisions of the Exchange Act and the associated rules and regulations under the Exchange Act, including Regulation M, which provisions may limit the timing of purchases and sales of our common shares by the selling shareholders. We will make copies of this prospectus available to the selling shareholders and have informed them of the need for delivery of copies of this prospectus to purchasers at or prior to the time of any sale of our common shares.

We will file a supplement to this prospectus, if required, pursuant to Rule 424(b) under the Securities Act upon being notified by a selling shareholder that any material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer. Such supplement will disclose:

- the name of each such selling shareholder and of the participating broker-dealer(s),
- the number of shares involved,
- the price at which such shares were sold,
- the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable,
- that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and
- other facts material to the transaction.

We retained Cardinal Securities, LLC, Scottsdale Capital Advisors and Stonegate Securities, Inc., all registered broker-dealers, as non-exclusive placement agents to identify for us certain prospective purchasers to participate in the offering pursuant to separate placement agent agreements with each placement agent. The placement agents were only required to act on a best efforts basis and had no obligation to purchase any of the securities offered in the offering.

As compensation for services rendered by the placement agents in connection with the offering, we have agreed to pay each placement agent a fee of five percent of the gross proceeds from the sale of securities sold to those purchasers that each respective placement agent identified. We also have agreed to issue warrants to purchase an amount of securities equal to five percent of the amount of securities sold to those purchasers that each respective placement agent identified. The warrants are for a period of five years at an exercise price per share of \$4.80 or 120% of the price at which the securities were sold in the offering. The placement agents and/or their respective agents and the number of warrants they have received respectively are referenced above in the selling shareholders table. Finally, we have agreed to reimburse the placement agents for certain of their

reasonable out-of-pocket expenses in connection with their performance under their respective placement agent agreements.

Pursuant to the terms of the placement agent agreements, we have agreed to indemnify and hold the placement agents harmless from and against any and all losses, claims, damages or liabilities (or actions, including shareholder actions, in respect thereof) related to or arising out of the placement agents' engagement (except by reason of the bad faith, gross negligence or willful misconduct of any such placement agent), and to reimburse the placement agents for all reasonable expenses in connection with investigating, preparing for or defending any such action or claim, whether or not in connection with pending or threatened litigation in which such placement agent may be a party.

Pursuant to the share purchase agreement, dated as of August 6, 2003, we have filed the registration statement, of which this prospectus is a part, with respect to the sale of certain selling shareholders' common shares. We have agreed, subject to certain exceptions, to indemnify and hold harmless each of the selling shareholders against any losses, claims, damages, liabilities or expenses, joint or several, to which such selling shareholder may become subject, insofar as such losses, claims, damages, liabilities or expenses arise out of a breach of the share purchase agreement or are based upon any untrue statement, alleged untrue statement, omission or alleged omission of any material fact contained in the registration statement, including the prospectus, financial statements and schedules, and all other documents filed as a part thereof, or any amendment or supplement thereto. We have agreed to pay all fees and expenses incurred by us in connection with the registration of the common shares pursuant to the share purchase agreement, dated as of August 6, 2003. All other expenses and fees associated with the sale of the common shares by the selling shareholders will be paid by the selling shareholders.

LEGAL MATTERS

The validity of the issuance of the common shares offered by this prospectus will be passed upon by Calfee, Halter & Griswold LLP, Cleveland, Ohio.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2002, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document that we file at the Commission's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the Commission at 1-800-SEC-0330 for further information on the Public Reference Room. Our filings with the Commission are also available to the public through the Commission's Internet site at <http://www.sec.gov>.

We have filed a registration statement on Form S-3 with the Commission. This prospectus is a part of the registration statement and does not contain all of the information in the registration statement. Wherever a reference is made in this prospectus to a contract or other document, please be aware that the reference is not necessarily complete and that you should refer to the exhibits that are a part of the registration statement for a copy of the contract or other document. You may review a copy of the registration statement at the Commission's Public Reference Room in Washington, D.C., as well as through the Commission's Internet site.

INCORPORATION BY REFERENCE

The Commission allows us to “incorporate by reference” the information we file with the Commission, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus.

Information that we file in the future with the Commission and incorporate by reference in this prospectus will automatically update and replace this information. We incorporate by reference the documents listed below and any future filings made by us with the Commission under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act if the filings are made before the time that all of the common shares are sold in this offering

- our annual report on Form 10-K for the year ended December 31, 2002,
- our quarterly report on Form 10-Q for the quarter ended March 31, 2003,
- our quarterly report on Form 10-Q for the quarter ended June 30, 2003,
- our current reports on Form 8-K filed on January 29, 2003, February 18, 2003, March 24, 2003, May 13, 2003, May 19, 2003, June 17, 2003, August 11, 2003 and August 18, 2003,
- our registration statement on Form 8-A, filed on May 10, 1996, describing our common shares, and
- our registration statement on Form 8-A, filed on September 19, 1997, describing the rights to purchase our common shares.

You may request a copy of these filings at no cost by writing or telephoning us at the following address:

DATATRAK International, Inc.
6150 Parkland Boulevard
Mayfield Heights, Ohio 44124
Attention: Mr. Terry C. Black
(440) 443-0082 x110

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of the common shares in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.